

FIG. 1 OF 2

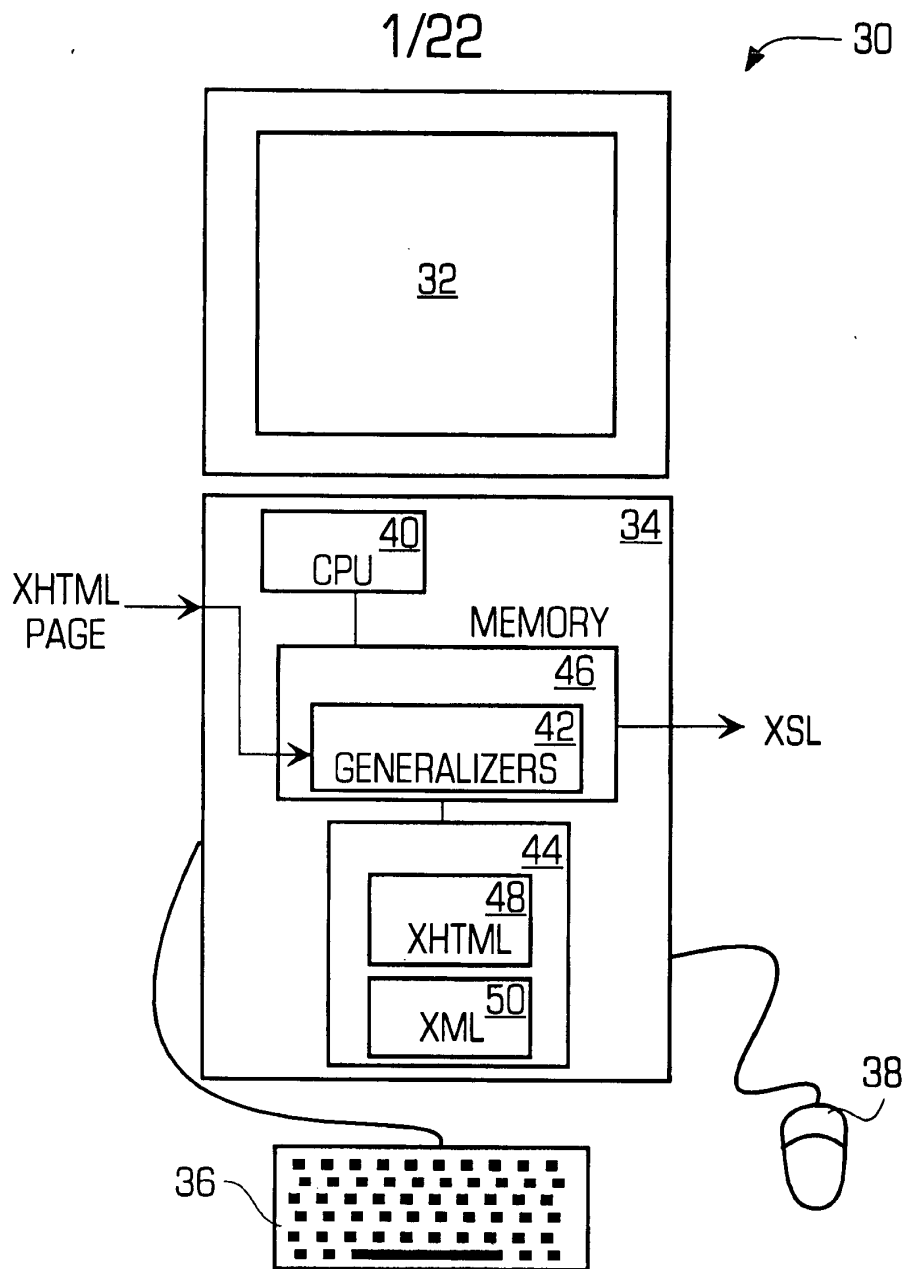


FIG. 1

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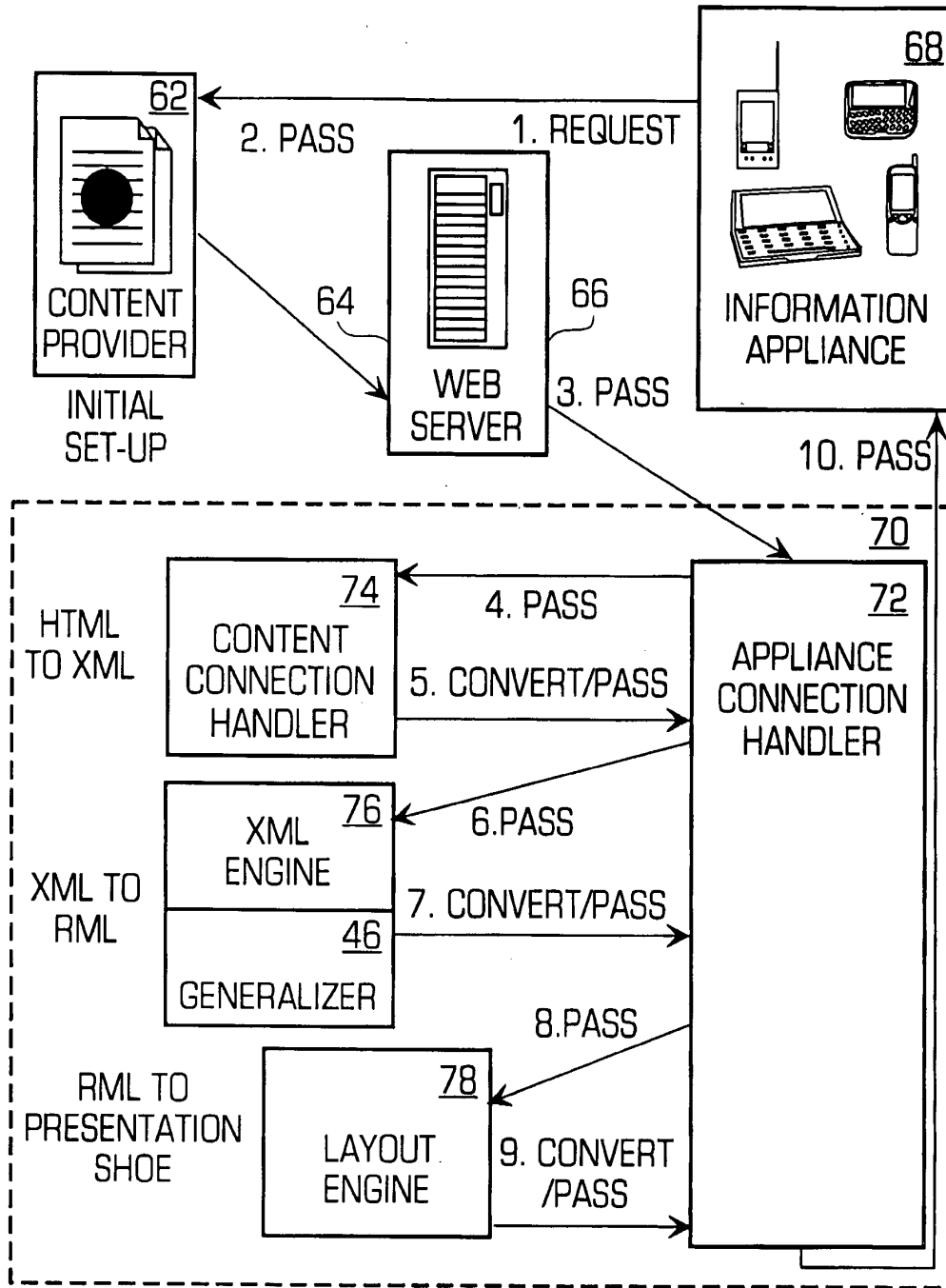
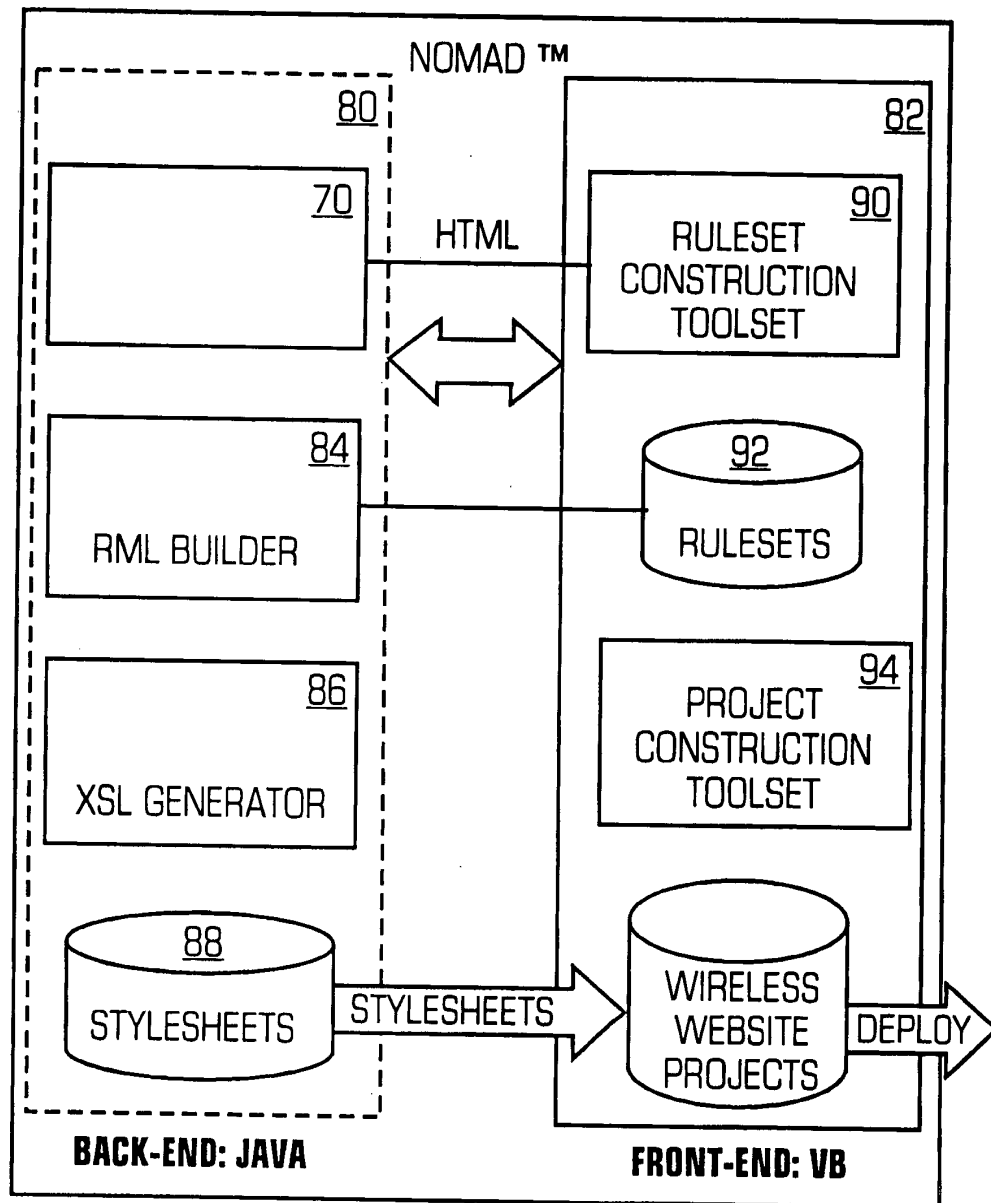


FIG. 2A

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FIG. 2B

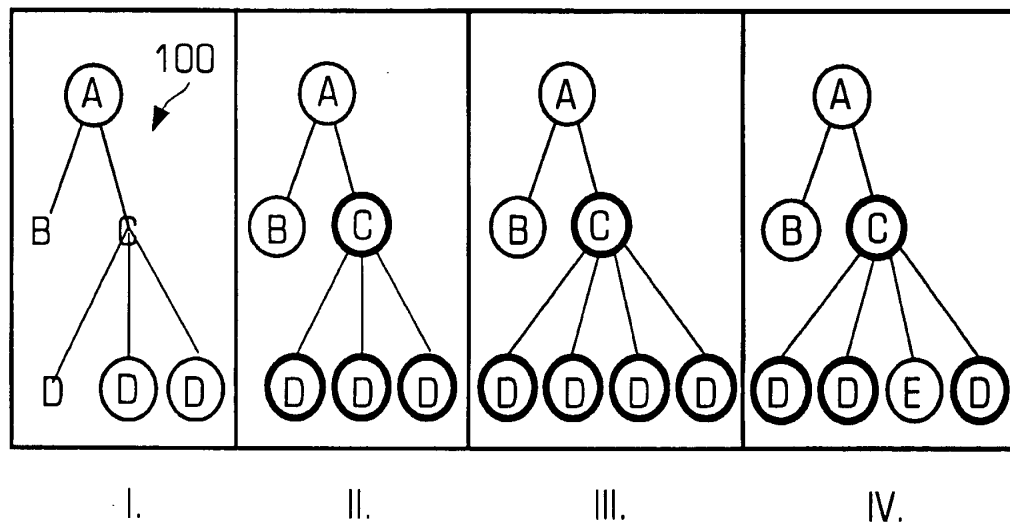


FIG. 3

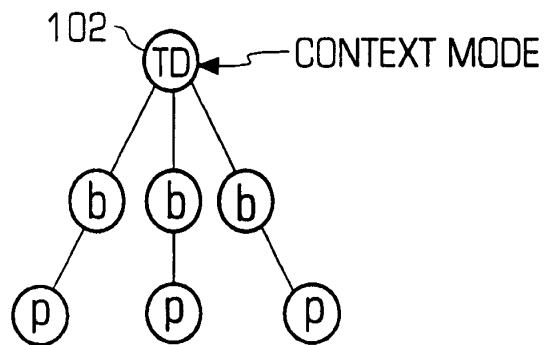


FIG. 4

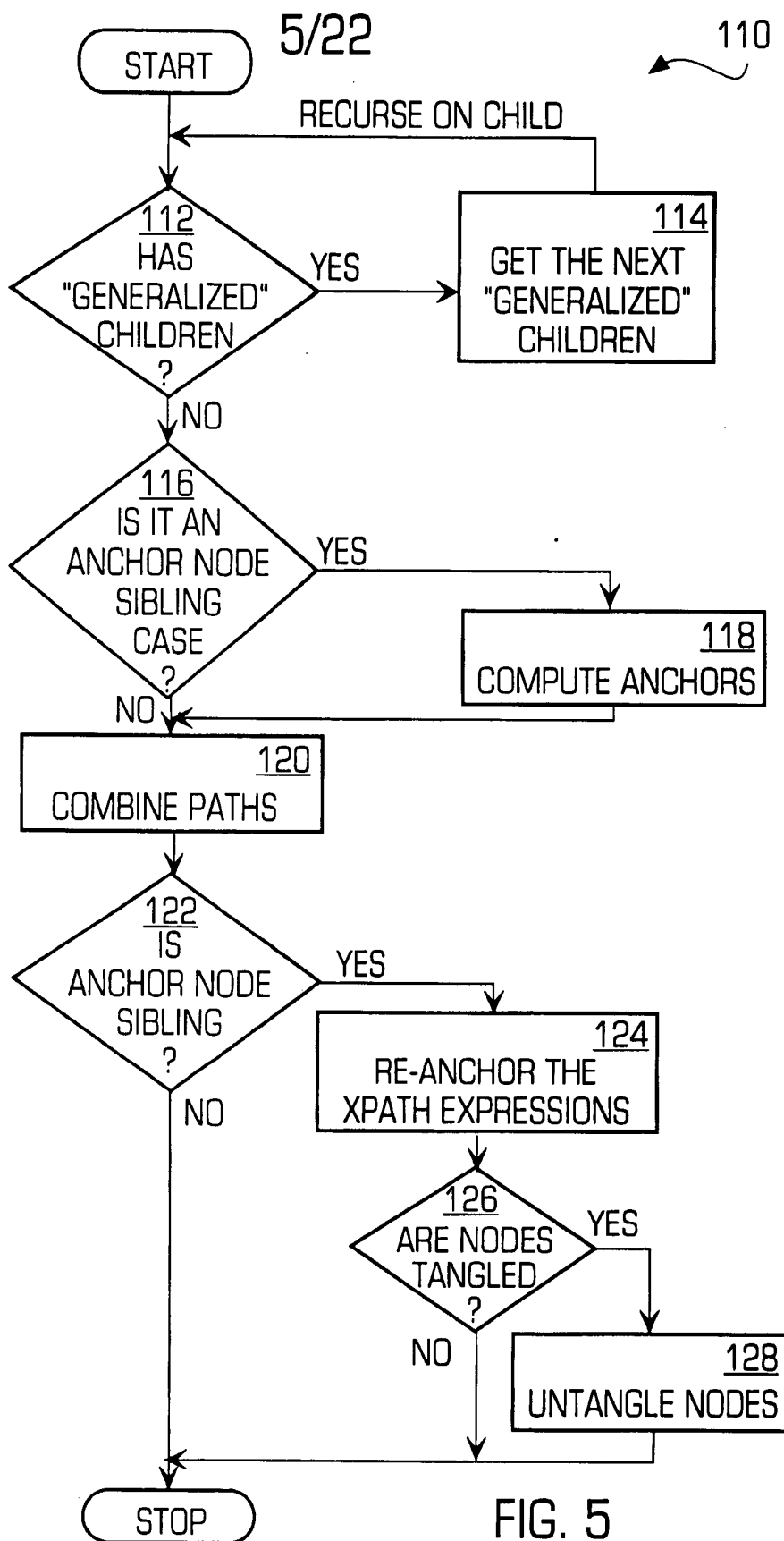


FIG. 5

FIG. 6

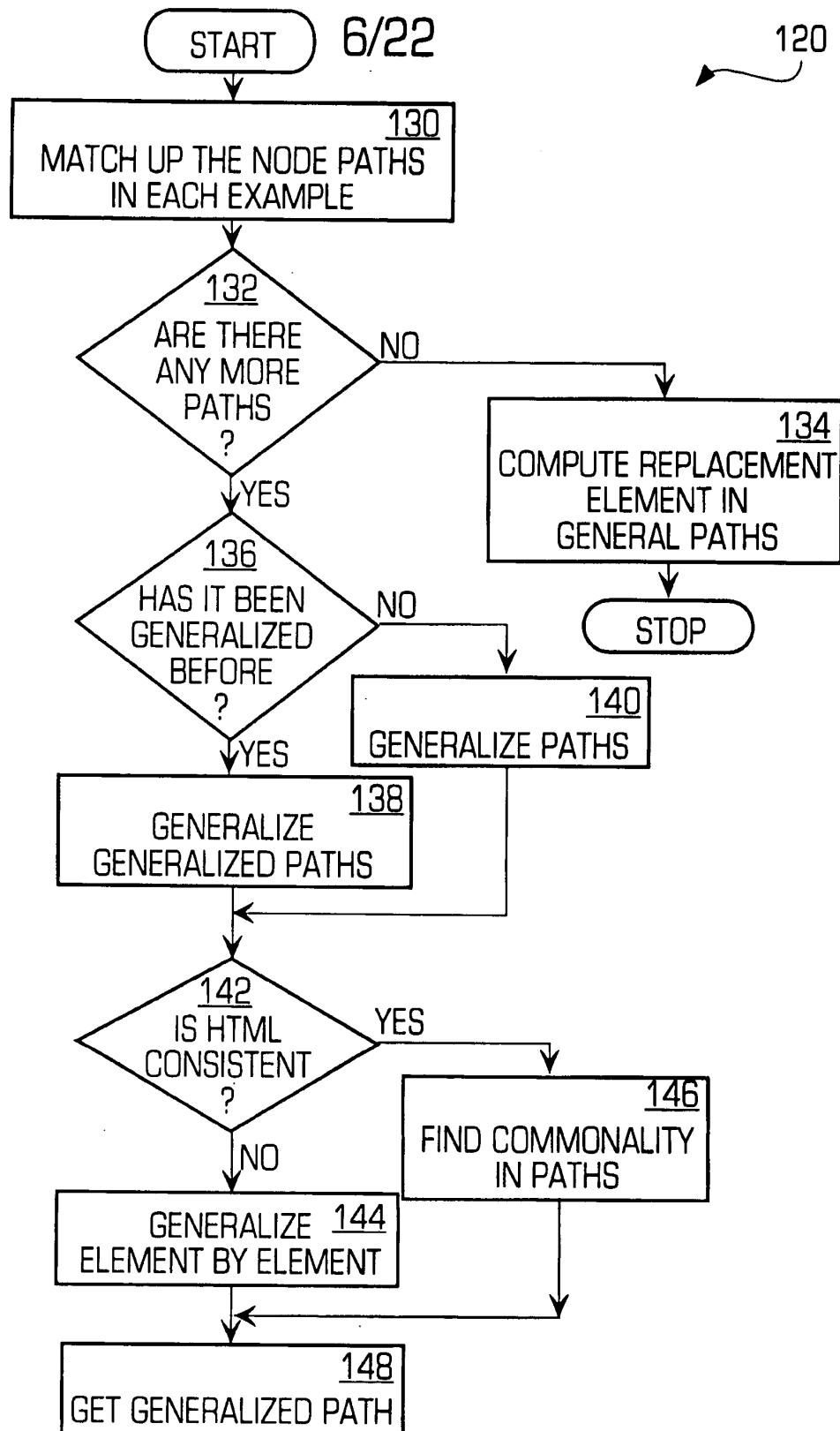


FIG. 6

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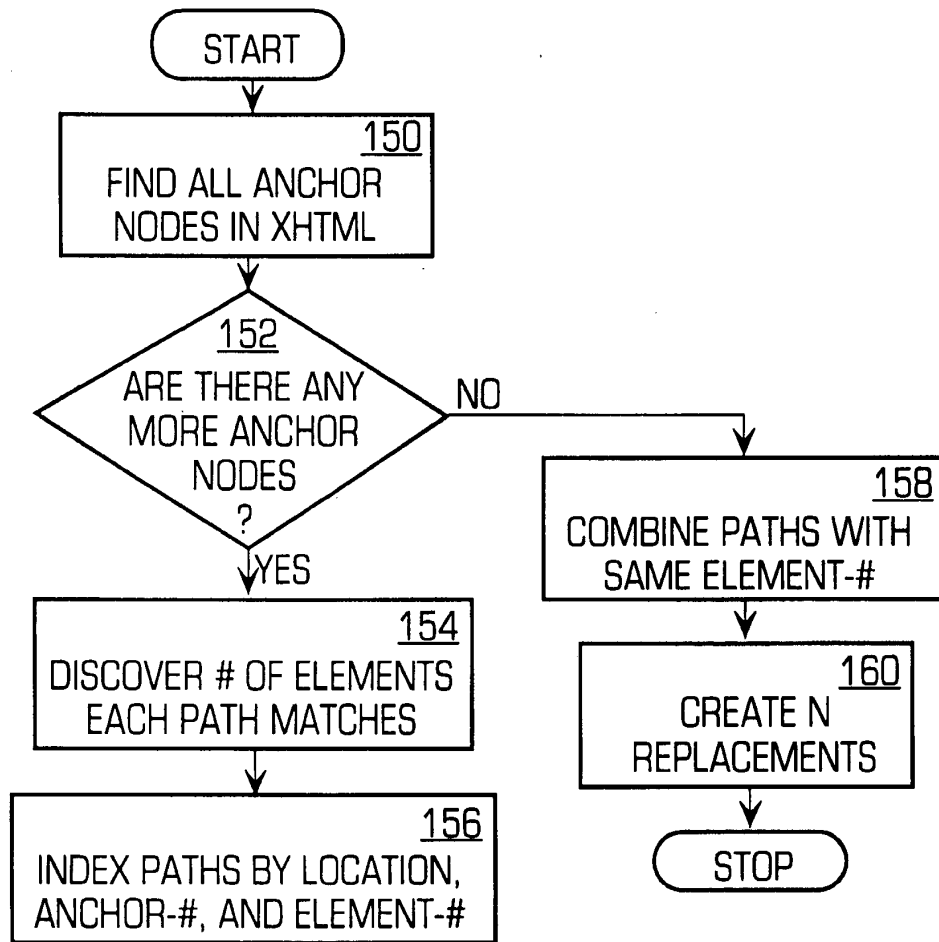
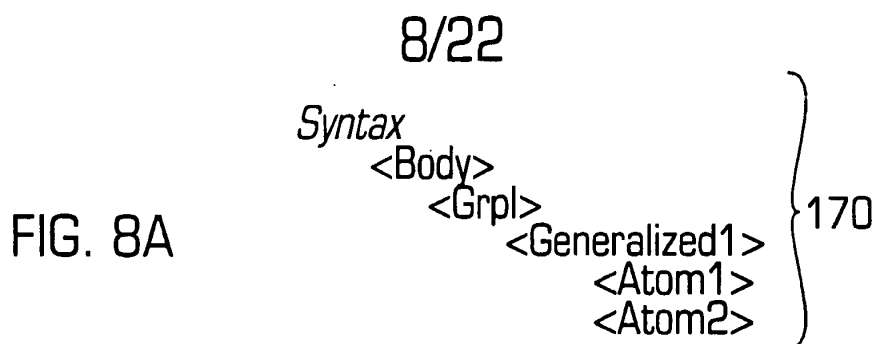


FIG. 7

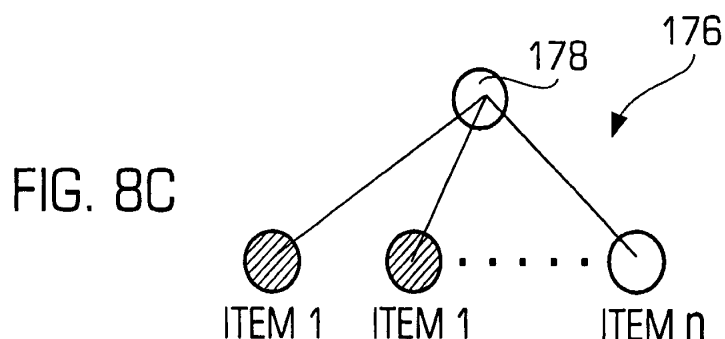
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FIG. 8A

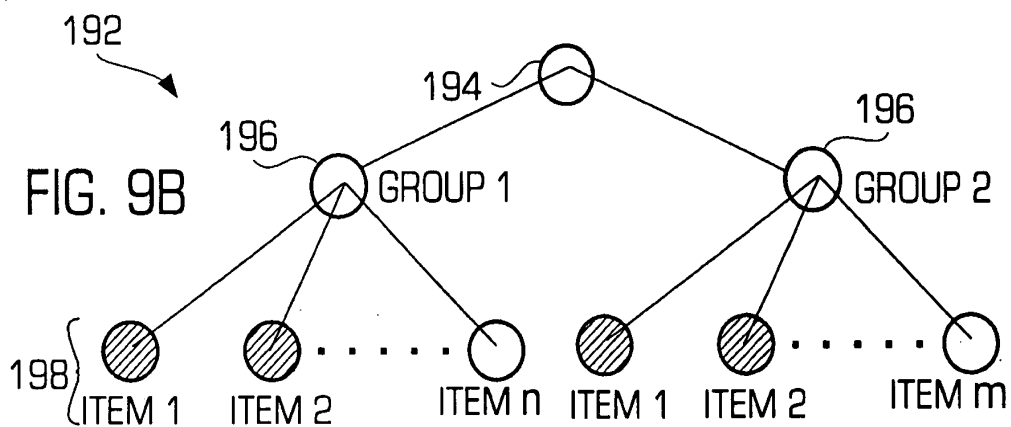
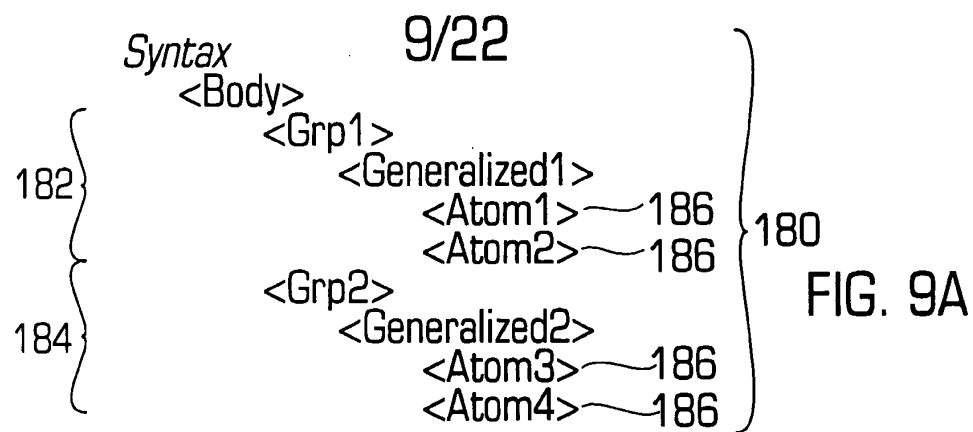


USER SELECTED CONTENT	GENERALIZED CONTENT
CATEGORIES 172 <u>ANTIQUES & ART</u> <u>BOOKS, MOVIES & MUSIC</u>	CATEGORIES 174 <u>ANTIQUES & ART</u> <u>BOOKS, MOVIES & MUSIC</u> <u>COINS & STAMPS</u> <u>COLLECTIBLES</u> <u>COMPUTERS</u> <u>DOLLS, FIGURES</u> <u>JEWELRY, GEMSTONES</u> <u>PHOTO & ELECTRONICS</u> <u>POTTERY & GLASS</u> <u>REAL ESTATE new!</u> <u>SPORTS</u> <u>TOYS, BEAN BAG PLUSH</u> <u>EVERYTHING ELSE</u> <u>ALL CATEGORIES...</u>

FIG. 8B



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FIG. 9C

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USER SELECTED CONTENT	GENERALIZED CONTENT
<p>Speciality Sites <u>AUTOMOTIVE</u> <u>BUSINESS EXCHANGE</u></p> <p>Categories <u>ANTIQUES & ART</u> <u>BOOKS, MOVIES & MUSIC</u></p>	<p>Specialty Sites <u>AUTOMOTIVE</u> <u>BUSINESS EXCHANGE</u> <u>GREAT COLLECTIONS</u> <u>HALF.COM (AN EBAY COMPANY)</u></p> <p>Categories <u>ANTIQUES & ART</u> <u>BOOKS, MOVIES & MUSIC</u> <u>COINS & STAMPS</u> <u>COLLECTIBLES</u> <u>COMPUTERS</u> <u>DOLLS, FIGURES</u> <u>JEWELRY, GEMSTONES</u> <u>PHOTO & ELECTRONICS</u> <u>POTTERY & GLASS</u> <u>REAL ESTATE_{new!}</u> <u>SPORTS</u> <u>TOYS, BEAN BAG PLUSH</u> <u>EVERYTHING ELSE</u> <u>ALL CATEGORIES...</u></p>

FIG. 9C

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```
<generalized displayname="Generalized 1">
  <include>
    <atomic xhtmlsourceid="131" displayname="Automotive ">
      <content>
        <contentitem id="1" sourceid="131" displayname="Content Item">
          <pathelement type="html" order="1"/>
          <pathelement type="body" order="1"/>
          <pathelement type="table" order="2"/>
          <pathelement type="tr" order="1"/>
          <pathelement type="td" order="1"/>
          <pathelement type="table" order="1"/>
          <pathelement type="tr" order="2"/>
          <pathelement type="td" order="2"/>
          <pathelement type="font" order="1"/>
          <pathelement type="b" order="1"/>
          <pathelement type="a" order="1"/>
        </contentitem>
      </content>
    <attributes>
      <class value="10,20,30"/>
      <align value="left"/>
      <name value="Automotive"/>
    </attributes>
  </atomic>
```

A₂ ————— A₂

FIG. 10A₁

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↑ A₁ ————— A₁ ↑

```

<atomic xmlns:sourceid="133" displayname="Business Exchange">
  <content>
    <contentitem id="1" sourceid="133" displayname="Content Item">
      <pathelement type="html" order="1"/>
      <pathelement type="body" order="1"/>
      <pathelement type="table" order="2"/>
      <pathelement type="tr" order="1"/>
      <pathelement type="td" order="1"/>
      <pathelement type="table" order="1"/>
      <pathelement type="tr" order="2"/>
      <pathelement type="td" order="2"/>
      <pathelement type="font" order="1"/>
      <pathelement type="b" order="1"/>
      <pathelement type="a" order="2"/>
    </contentitem>
  </content>
  <attributes>
    <class value="10,20,30"/>
    <align value="left"/>
    <name value="Business Exchange"/>
  </attributes>
</atomic>
</include>
</generalized>
  
```

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FIG. 10A₂

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B. INTERMEDIATE FILE (AFTER GENERALIZATION)

```
<group displayname='Specialty'>
  <attributes>
    <class value="10,20,30"/>
    <sequential value="sequential"/>
    <align value="left"/>
    <name value="Specialty"/>
  </attributes>
  <atomic displayname="Automotive " xhtmlsourceid="131">
    <content>
      <contentitem displayname="Content Item" id="1" sourceid="131"/>
    </content>
    <attributes>
      <class value="10,20,30"/>
      <align value="left"/>
      <name enumerate="enumerate" value="Automotive "/>
    </attributes>
    <xhtmlpath generalized="true">
      <pathelement order="-1" type="a"/>
    </xhtmlpath>
  </atomic>
  <xhtmlpath>
    <pathelement axis="descendant::" order="-1" predicate="child::a and
    child::font" type="b"/>
  </xhtmlpath>
</group>
```

B₂-----B₂

FIG. 10B₁

FIG. 10B₁

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B₁

B₁

```

<group displayname="Categories">
  <attributes>
    <class value="10,20,30"/>
    <sequential value="sequential"/>
    <align value="left"/>
    <name value="Categories"/>
  </attributes>
  <atomic displayname="Antiques and Art " xhtmlsourceid="158">
    <content>
      <contentitem displayname="Content Item" id="1" sourceid="158"/>
    </content>
    <attributes>
      <class value="10,20,30"/>
      <align value="left"/>
      <name enumerate="enumerate" value="Antiques and Art "/>
    </attributes>
    <xhtmlpath generalized="true">
      <pathelement order="-1" type="a"/>
    </xhtmlpath>
  </atomic>
  <xhtmlpath>
    <pathelement axis="descendant::" order="-1" predicate="child::a and
      child::img" type="b"/>
  </xhtmlpath>
</group>
<xhtmlpath>
  <pathelement order="1" type="body"/>
</xhtmlpath>
</group>
<xhtmlpath>
  <pathelement order="-1" predicate="ancestor::document[@page='1']
    or not(ancestor::document)" type="html"/>
</xhtmlpath>
</arml>

```

FIG. 10B₂

FIG. 10B₁

The relevant portion of the final XSL Stylesheet generated as a result of the generalization as depicted in the example of Case-2 is given below.

c) Final Stylesheet

```

<xsl:template match="body" mode="Body">
  <group class="10,20,30" name="Body" sequential="sequential">
    <xsl:apply-templates select="descendant::blchild::a and child::font" mode="Specialty"/>
    <xsl:apply-templates select="descendant::blchild::a and child::img" mode="Categories"/>
  </group>
</xsl:template>

<xsl:template match="b" mode="Specialty">
  <group class="10,20,30" sequential="sequential" align="left" name="Specialty">
    <xsl:apply-templates select="a" mode="Automotive~"/>
  </group>
</xsl:template>

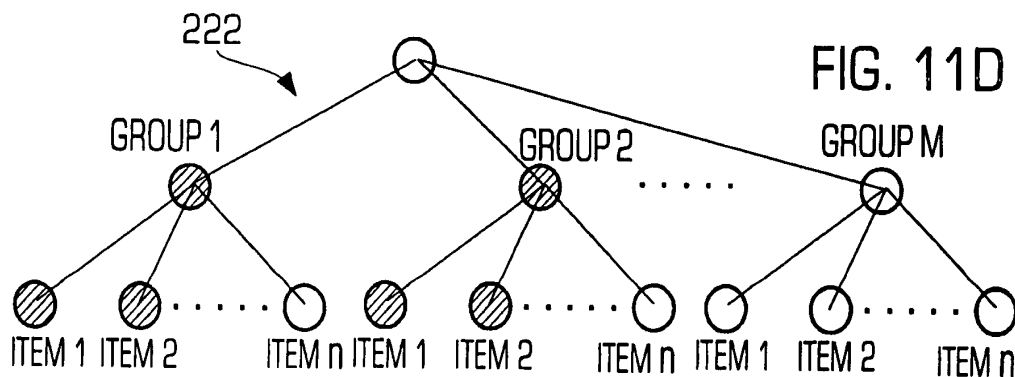
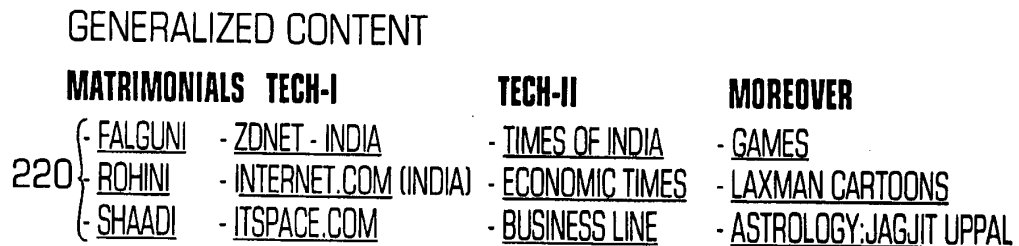
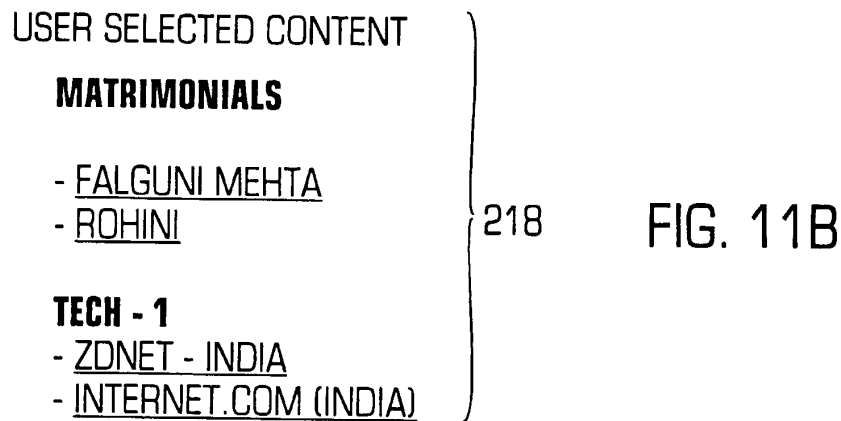
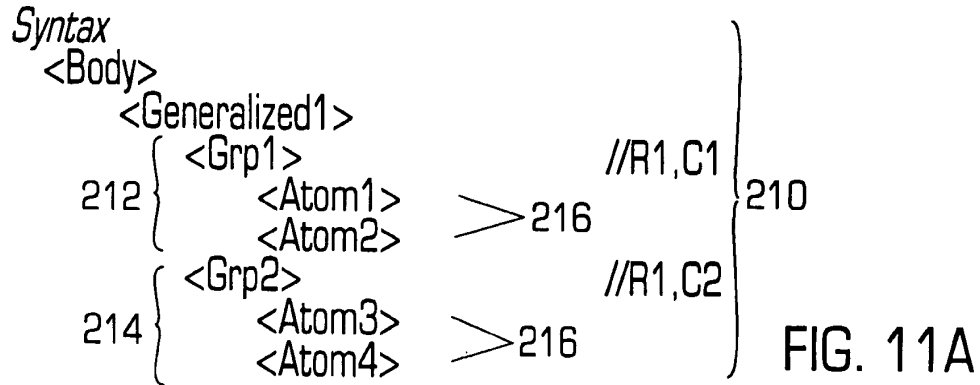
<xsl:template match="b" mode="Categories">
  <group class="10,20,30" sequential="sequential" align="left" name="Categories">
    <xsl:apply-templates select="a" mode="Antiques~and~Art~"/>
  </group>
</xsl:template>

<xsl:template match="a" mode="Automotive~">
  <atomic class="10,20,30" align="left" name="Automotive">
    <a href="{./@href}">
      <xsl:value-of select="normalize-space(.)"/>
    </a>
  </atomic>
</xsl:template>

<xsl:template match="a" mode="Antiques~and~Art~">
  <atomic class="10,20,30" align="left" name="Antiques and Art">
    <a href="{./@href}">
      <xsl:value-of select="normalize-space(.)"/>
    </a>
  </atomic>
</xsl:template>

```

FIG. 10C



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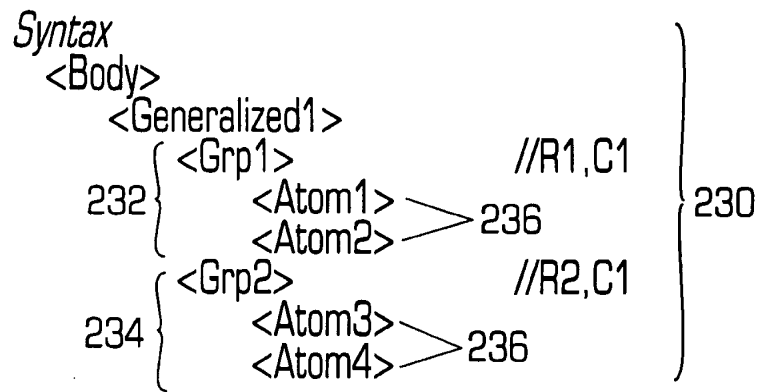


FIG. 12A

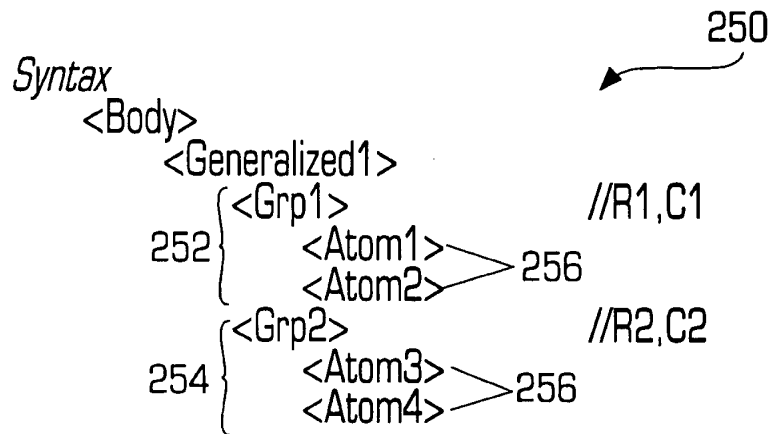


FIG. 13A

USER SELECTED CONTENT

FRINGE

- HUNTERS SET TRAP FOR 'MONSTER' IN NORWAY LAKE
- BERMUDA SHORTS APPROVED FOR BERMUDA'S PARLIAMENT

MULTIMEDIA SHOWCASE

- SPACE EXPLORATION - VOYAGE INTO THE FUTURE
- 360⁰: BEHIND THE SCENES OF THE AIR FORCE THUNDERBIRDS

FIG. 13B

USER SELECTED CONTENT	GENERALIZED CONTENT
NATIONAL <u>CALIFORNIA MULLS ELECTRICITY RATE FREEZE</u> <u>GENES LINKED TO MELANOMA GROWTH</u> WORLD <u>SUHARTO CHARGED WITH CORRUPTION</u> <u>BARAK TALKS PEACE IN EGYPT</u>	NATIONAL <u>CALIFORNIA MULLS ELECTRICITY RATE FREEZE</u> <u>GENES LINKED TO MELANOMA GROWTH</u> <u>4 FIREFIGHTERS HURT IN CALIFORNIA</u> <u>21 DEATHS FROM FAULTY TIRES REPORTED</u> <u>BIGGER BANKS CHARGE MORE</u> WORLD <u>SUHARTO CHARGED WITH CORRUPTION</u> <u>BARAK TALKS PEACE IN EGYPT</u> <u>DEATH TOLL RISES IN KASHMIR</u> <u>ZIMBABWE'S MUGABE VOWS LAND GRAB</u> <u>SOLIDARITY HERO ACCUSED OF COLLABORATION</u> CAMPAIGN 2000 <u>BUSH PREPS ACCEPTANCE SPEECH</u> <u>CHENEY GOES FOR THE CAPILLARY</u> <u>GORE TO CLINTON: NO MAS!</u> <u>NEXT: ON CONVENTION</u> <u>'SHADOW' FOUNDER HAS ANSWERS</u> SCITECH <u>CELL PHONES RING UP RAGE</u> <u>CHOLERA'S BLUEPRINT DECODED</u> <u>FBI SUED FOR E-MAIL SNOOPING DETAILS</u> <u>SNAIL MAIL MEETS E-MAIL</u> <u>FEDS FUND TRY FOR WEST NILE VACCINE</u> SHOWBIZ <u>GERVASE BITES THE DUST</u> <u>DOWNEY FREE, BUT IN SECLUSION</u> <u>THE QUEEN OF DISGUISE</u> <u>HORROR MOVIE 'PSYCHO' IS 40</u> <u>CELEBRITY SCOOP</u>

FIG. 12B

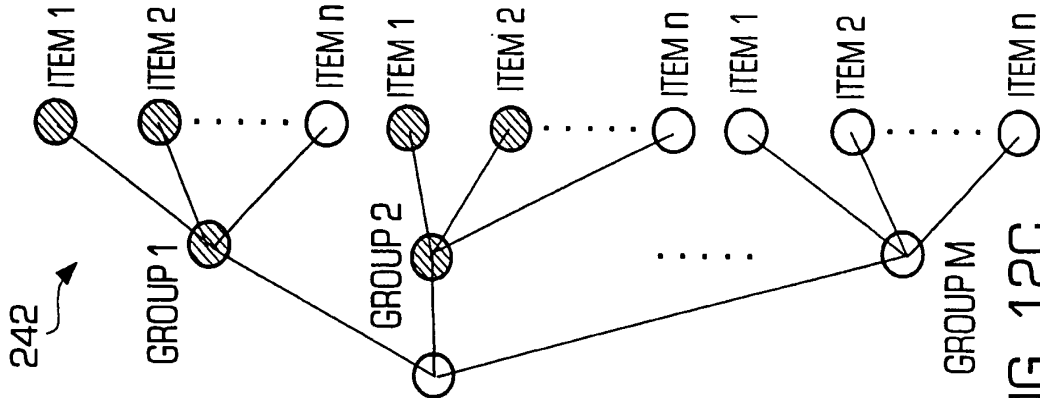


FIG. 12C

FRINGE

- HUNTERS SET TRAP FOR 'MONSTER' IN NORWAY LAKE
- BERMUDA SHORTS APPROVED FOR BERMUDA'S PARLIAMENT
- FISH STABS MAN
- WOULD YOU PAY MORE TO DRY YOUR CLOTHES FASTER?

GENERALIZED CONTENT

DISCUSSION

- SOUND OFF WITH YOUR OPINION ABOUT THE CONVENTIONS AND CAMPAIGN 2000
- WHAT IS YOUR REACTION TO STEPHEN KING'S LATEST SERIAL ONLINE NOVEL?
- DO YOU FEEL THREATENED BY CARNIVORE, THE FBI'S LATEST INTERNET SURVEILLANCE SYSTEM
- WHAT IS THE APPROPRIATE COMPENSATION TO BE PAID TO VICTIMS OF NAZI SLAVE LABOR POLICIES?

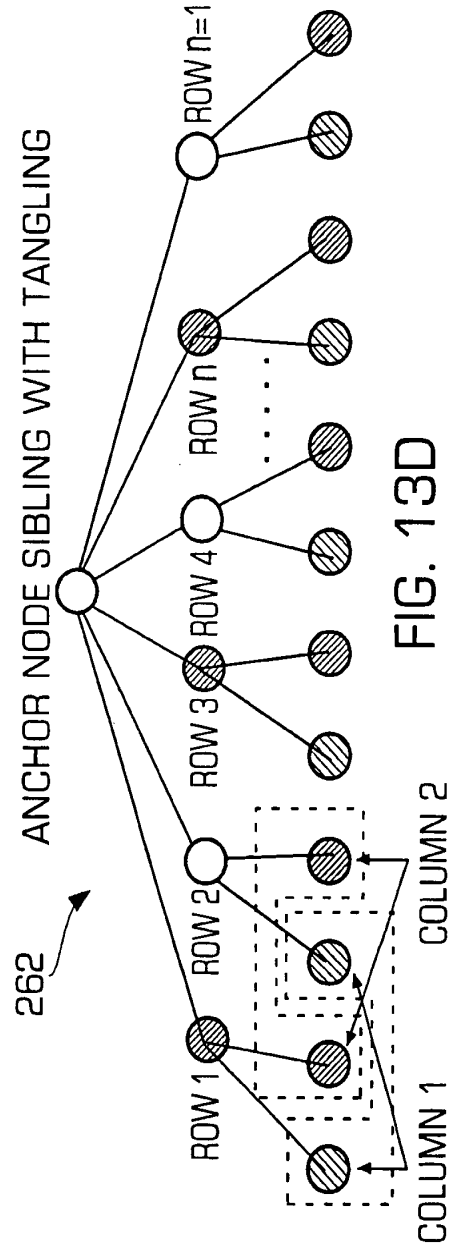
MILLENNIUM

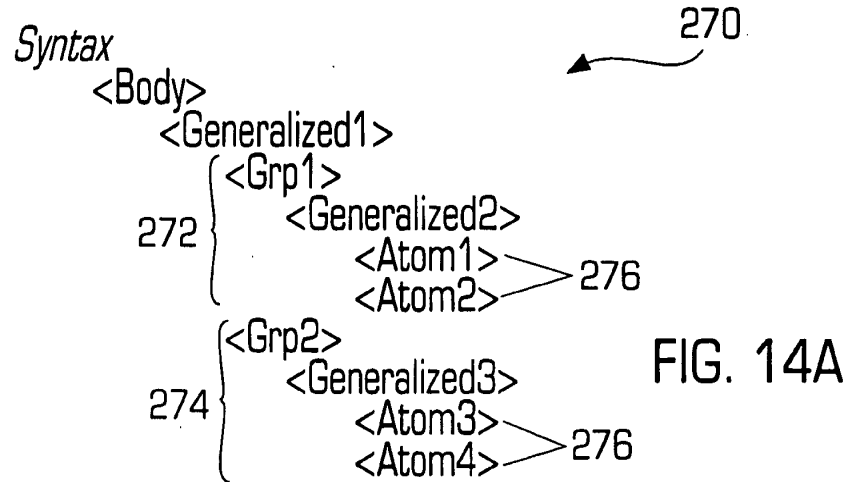
- EPISODE FOUR: CENTURY OF THE SCYTHE
- DINNER WITH MANSA MUSA
- UNSOLVED HISTORIES: SECRETS OF THE PLAGUE
- MAP: THE BLACK DEATH

MULTIMEDIA SHOWCASE

- SPACE EXPLORATION - VOYAGE INTO THE FUTURE
- 360°: BEHIND THE SCENES OF THE AIR FORCE THUNDERBIRDS
- HOW DO NEWS EDITORS DECIDE WHAT TO COVER? USE THE NEWSCENTER
- MORE SHOCKWAVE, MORE FLASH, MORE MULTIMEDIA

FIG. 13C





USER SELECTED CONTENT

FINANCE

- WALLET WATCH
- DHAN

GOVERNMENT

- GOV'T. OF INDIA INDEX OF OFFICIAL WEBSITES
- CBI

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FIG. 14B

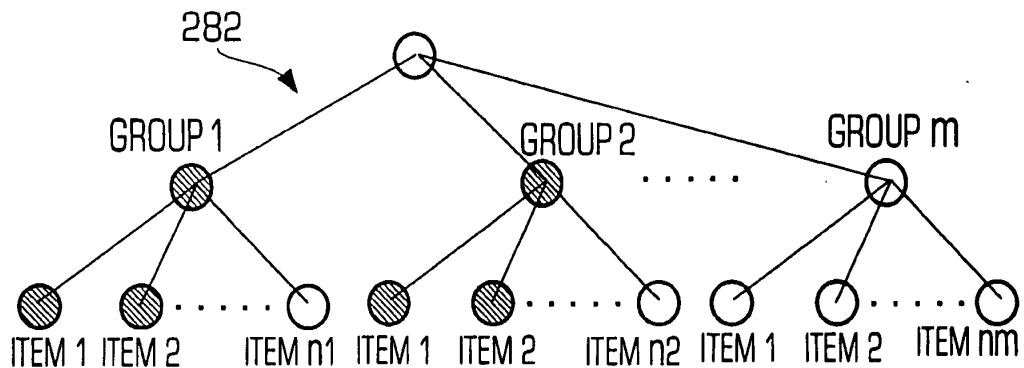


FIG. 14D

FINANCE

- WALLET WATCH
- DHAN
- INDIANVEST
- BSE - NSE
- SEBI - NSDL
- AMFI
- RBI
- BUDGET 1999

GOVERNMENT

- GOV'T. OF INDIA INDEX
- OF OFFICIAL WEBSITES
- CBI
- ARMED FORCES
- VIJAY IN KARGIL (OFFICIAL)
- BHARAT RAKSHAK

CRICKET

- KHEL.COM
- CRICINFO
- AMUL WORLD CRICKET RANKING
- CRICKMANIA
- LORDS
- SUNDER RAJAN'S COLUMNS

FILMS

- INDIAN MOVIES
- INDIAWORLD: TOP 25 HINDI SONGS
- INDIAWORLD: NEW FILMS
- SCREEN
- CINE BLITZ
- FILMFARE
- STARDUST

NRIS

- FAQ BY NRIS
- PASSPORT & VISA DIVISION, INDIA - INDIAN INVESTMENT CENTRE
- BANKSINDIA.COM
- Q & A BY AN SHANBHAG
- BAGGAGE RULES FOR TOURISTS
- STD (AREA) CODES

FOOD

- BAWARCHI (SAROJ'S COOKBOOK)
- AMUL'S RECIPES
- DHARA'S RECIPES
- MASTER CHEF SANJEEV KAPOOR
- TARLA DALAL ONLINE

TRAVEL

- INDIA TRAVELOG
- ASIAN GEOGRAPHIC
- MINISTRY OF TOURISM
- AIR-INDIA
- INDIAN AIRLINES
- JET AIRWAYS
- INDIAN RAILWAY
- LONELY PLANET

JOBS

- SAMPOOMA
- NAUKRI
- TIMES JOBS & CAREERS
- CAREER INDIA
- WINJOBS

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FIG. 15